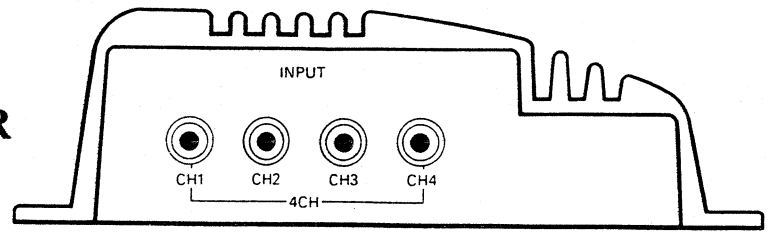
SERVICE MANUAL

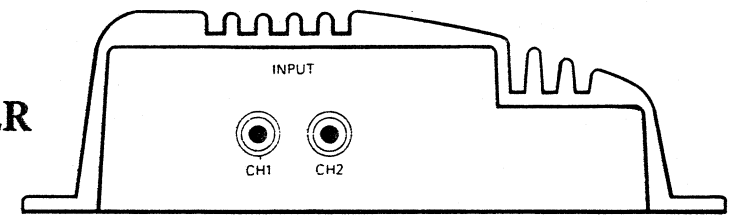
XA-1041

CAR STEREO AMPLIFIER



XA-1040

CAR STEREO AMPLIFIER



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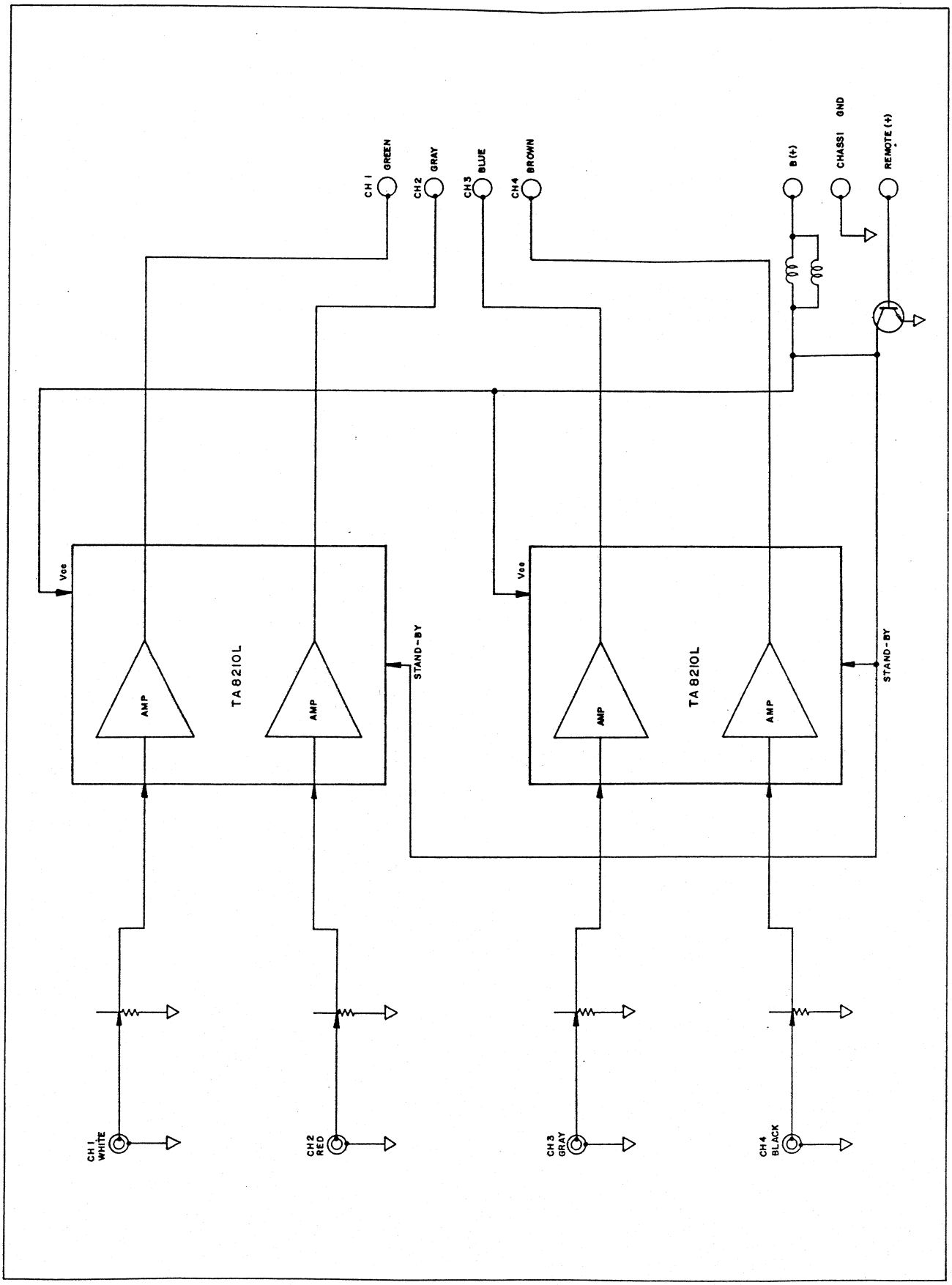
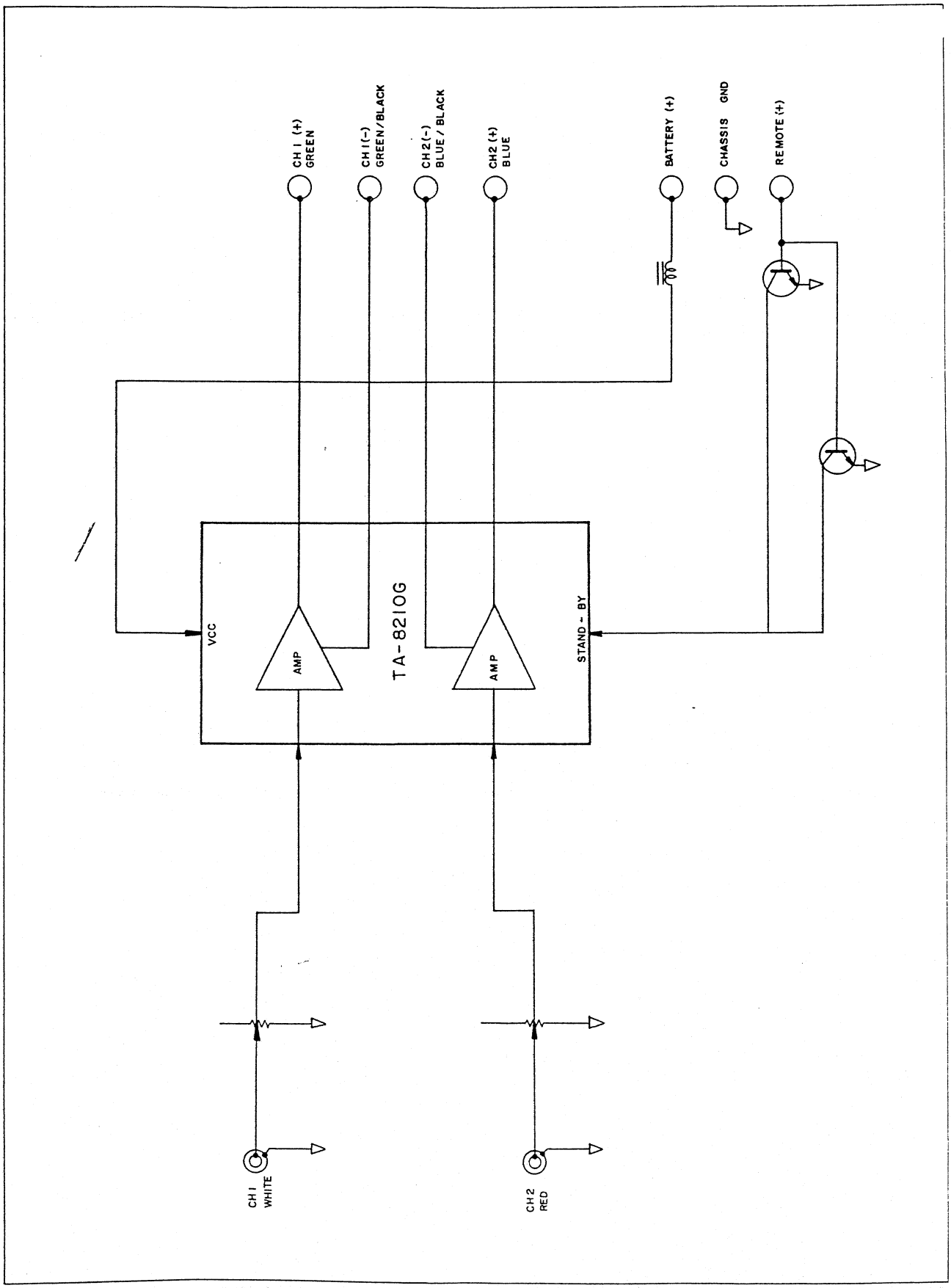
Sherwood

Block Diagram (XA-1041)



Block Diagram (XA-1040)



Electrical Parts List (XA-1041)

Ref. No.	Part No.	Description	Position
Main P.C. Board 4002607500			
• Integrated Circuits			
IC101	2178307136	TA8210, Power Amp.	B3
IC102	2178307136	TA8210, Power Amp.	B2
• Transistors			
Q501	2008607104	NPN KTC 1815(Y) KEC	A3
Q502	2008209102	NPN MPS A56 MOTORORA	A2
Q503	2208622107	NPN 2SC 1740(S) R-OHM(K)	A2
Q504	2008622104	NPN DTC 114(T) R-OHM(K)	A2
• Diodes			
D501	2058106100	Rectifier 1N4002 100V/1A Silicon	A3
D502	2058322101	Switching 1N4148(M) 60V/500mW Silicon	A2
• Semi-Fixed Variable Resistors			
VR101	3248020325	RES SEMI, B-20K	A1
VR201	3248020325	RES SEMI, B-20K	A1
VR301	3248020325	RES SEMI, B-20K	A1
VR401	3248020325	RES SEMI, B-20K	B1
• Capacitors			
C101 ※	3579471130	Ceramic 470 pF 50V J	A1
C102	3479210971	Electrolytic 1 μF 50V SA M	A1
C103	3579471130	Ceramic 470 pF 50V J	A1
C104	3479210971	Electrolytic 1 μF 50V SA M	B2
C105	3679102120	*Mylar 0.001 μF 100V J	B2
C106	3479222071	Electrolytic 22 μF 25V SA M	B2
C107	3409222233	Electrolytic 2200 μF 16V CV M	A3
C108 ~ C110	3679104120	Mylar 0.1 μF 100V J	B3
C111 ~ C200		Not used	
C201 ※	3579471130	Ceramic 470 pF 50V J	A1
C202	3479210971	Electrolytic 1 μF 50V SA M	A1
C203	3579471130	Ceramic 470 pF 50V J	A1
C204	3479210971	Electrolytic 1 μF 50V SA M	A3
C205	3679102120	Mylar 0.001 μF 100V J	B3
C206	3479222071	Electrolytic 22 μF 25V SA M	B2
C207	3479247021	Electrolytic 47 μF 10V SA M	B3
C208,C209	3679104120	Mylar 0.1 μF 100V J	B3
C210 ~ C300		Not used	
C301 ※	3579471130	Ceramic 470 pF 50V J	A1
C302	3479210971	Electrolytic 1 μF 50V SA M	A1
C303	3579471130	Ceramic 470 pF 50V J	B1
C304	3479210971	Electrolytic 1 μF 50V SA M	A1
C305	3679102120	Mylar 0.001 μF 100V J	A1
C306	3479222071	Electrolytic 22 μF 25V SA M	B1
C307	3409222233	Electrolytic 2200 μF 16V CV M	A2
C308 ~ C310	3679104120	Mylar 0.1 μF 100V J	B2
C311 ~ C400		Not used	
C401 ※	3579471130	Ceramic 470 pF 50V J	B1
C402	3479210971	Electrolytic 1 μF 50V SA M	B1
C403	3579471130	Ceramic 470 pF 50V J	B1
C404	3479210971	Electrolytic 1 μF 50V SA M	B1
C405	3679102120	Mylar 0.001 μF 100V J	B1
C406	3479222071	Electrolytic 22 μF 25V SA M	B1/2
C407	3409222121	Electrolytic 220 μF 10V SA M	A2
C408,C409	3679104120	Mylar 0.1 μF 100V J	B2
• Resistors (All resistors are Carbon Film 1/4W J Type unless otherwise noted)			
R101,R102	3069102270	1k ohm	A1
R103		Not used	
R104	3069104270	100k ohm	A1
R105	3069561270	560 ohm	B2
R106,R107	3069229270	2.2 ohm	B3
R108 ~ R200		Not used	
R201,R202	3069102270	1k ohm	A1
R203		Not used	
R204	3069104270	100k ohm	A1
R205	3069561270	560 ohm	B2/3
R206,R207	3069229270	2.2 ohm	B3
R208	3069150270	15 ohm	A2
R209 ~ R300		Not used	
R301,R302	3069102270	1k ohm	A1
R303		Not used	
R304	3069104270	100k ohm	B1
R305	3069561270	560 ohm	B1
R306,R307	3069229270	2.2 ohm	B2
R308 ~ R400		Not used	
R401	3069102270	1k ohm	B1
R402,R403		Not used	
R404	3069104270	100k ohm	B1
R405	3069561270	560 ohm	B2
R406,R407	3069229270	2.2 ohm	B2
R408	3069150270	15 ohm	B2
R409 ~ R500		Not used	
R501	3069104270	100k ohm	A3
R502	3069223270	22k ohm	A3
R503	3069102270	1k ohm	A3
R504 ~ R507	3069103270	10k ohm	A2
R508	3069102270	1k ohm	A2
R509	3069473270	47k ohm	A2
R510	3069102270	1k ohm	A2
R511	3069222270	2.2k ohm	B3
• Others			
LED501	2308220109	LED SLR54URC3, Red	B3
	2898000020	Trans Choke	A3
	4438104810	RCA Jack 4P	A1
	4428501510	Power Plug 5569-14NA	A3
	4428304810	Power Accessory, 5517-14NR	

Note: RESISTOR/CAPACITOR TOLERANCE; D: ±0.5%, J: ±5%, K: ±10%, M: ±20%, Z: +80%, −20%

For ※ Marks C101, C201, C301, C401 is I.E (F.T.Z) Only Item.

For * Mylar is registered trademark of E.I Du Pont de Nemours and Company.

Electrical Parts List (XA-1040)

Ref. No.	Part No.	Description	Position
Main P.C. Board 4002609300			
• Integrated Circuits			
IC101	2178307136	TA8210, Power Amp.	A1/2
• Transistors			
Q301	2008607104	NPN KTC 1815(Y) KEC	B1
Q302	2008209102	NPN MPS A56 MOTORORA	B1
Q303	2208622107	NPN 2SC 1740(S) R-OHM(K)	B2
Q304	2008622104	NPN DTC 114(T) R-OHM(K)	B2
• Diodes			
D301	2058106100	Rectifier 1N4002 100V/1A Silicon	B1
D302	2058322101	Switching 1N4148(M) 60V/500mW Silicon	B1
• Semi-Fixed Variable Resistors			
VR101	3248020325	RES SEMI, B-20K	B2
VR201	3248020325	RES SEMI, B-20K	B2
• Capacitors			
C101 ※	3579471130	Ceramic 470 pF 50V J	B1
C102	3479210971	Electrolytic 1 μF 50V SA M	B2
C103	3479210971	Electrolytic 1 μF 50V SA M	A2
C104	3679102120	*Mylar 0.001 μF 100V J	A2
C105	3479222071	Electrolytic 22 μF 25V SA M	A2
C106	3409222121	Electrolytic 220 μF 10V SA M	B2
C107,C108	3679104120	Mylar 0.1 μF 100V J	A1
C109	3409222233	Electrolytic 2200 μF 16V CV M	A1
C110	3679104120	Mylar 0.1 μF 100V J	A1
C111~C200		Not used	
C201 ※	3579471130	Ceramic 470 pF 50V J	B1
C202,C203	3479210971	Electrolytic 1 μF 50V SA M	B2
C204	3679102120	Mylar 0.001 μF 100V J	A2
C205	3479222071	Electrolytic 22 μF 25V SA M	A2
C206,C207	3679104120	Mylar 0.1 μF 100V J	A1
C208~C300		Not used	
C301	3409210131	Electrolytic 100 μF 16V SM M	B2
• Resistors (All resistors are Carbon Film 1/4W J Type unless otherwise noted)			
R101	3069473270	47k ohm	B2
R102	3069102270	1k ohm	B2
R103	3069182270	1.8k ohm	B2
R104	3069102270	1k ohm	A2
R105	3069681270	680 ohm	A1
R106,R107	3069229270	2.2 ohm	A1
R108~R200		Not used	
R201	3069473270	47k ohm	B2
R202	3069102270	1k ohm	B2
R203	3069182270	1.8k ohm	B2
R204	3069102270	1k ohm	A2
R205	3069681270	680 ohm	A2
R206,R207	3069229270	2.2 ohm	A1
R208~R300		Not used	
R301	3069104270	100k ohm	B1
R302	3069223270	22k ohm	B1
R303	3069102270	1k ohm	B1
R304~R306	3069103270	10k ohm	B1
R307	3069103270	10k ohm	B2
R308	3069102270	1k ohm	B2
R309	3069473270	47k ohm	B2
R310	3069102270	1k ohm	B2
R311	3069222270	2.2k ohm	A1
R312	3069150270	15 ohm	A1/2
• Others			
LED501	2308220109	LED SLR54URC3, Red	A1
	2898000020	Trans Choke	B1
	4438104810	RCA Jack 4P	B2
	4428501510	Power Plug 5569-14NA	B1
	4428304810	Power Accessory, 5517-14NR	

Note: RESISTOR/CAPACITOR TOLERANCE; D: ±0.5%, J: ±5%, K: ±10%, M: ±20%, Z: +80%, −20%
For ※ Marks C101, C201 is I.E (F.T.Z) Only Item.
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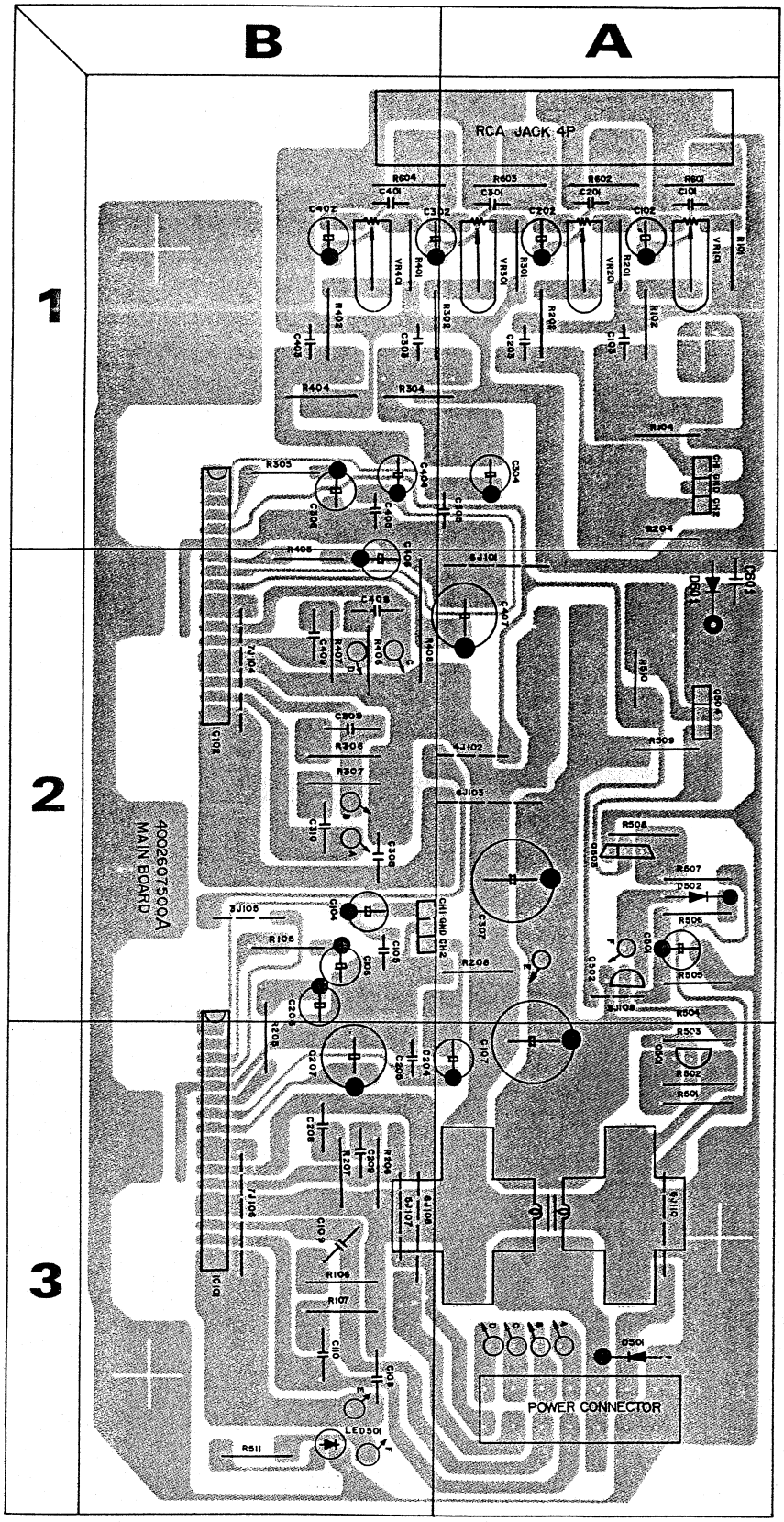
Top & Bottom View of P.C. Boards

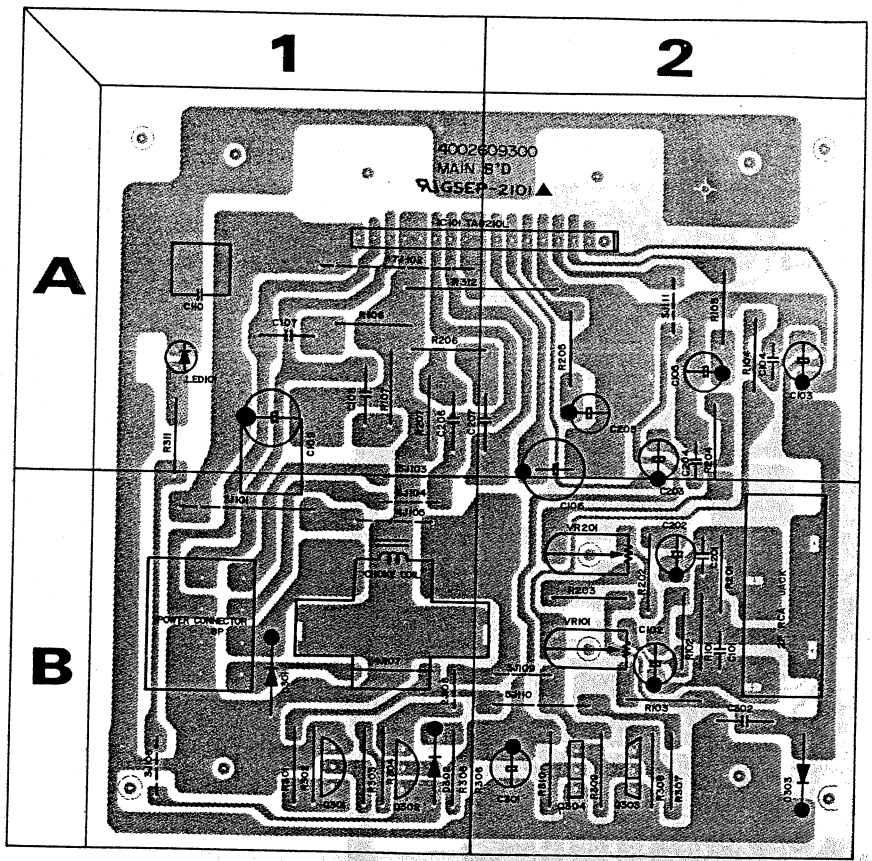
MAIN P.C. BOARD 4002607500 (XA-1041)

— TOP VIEW —

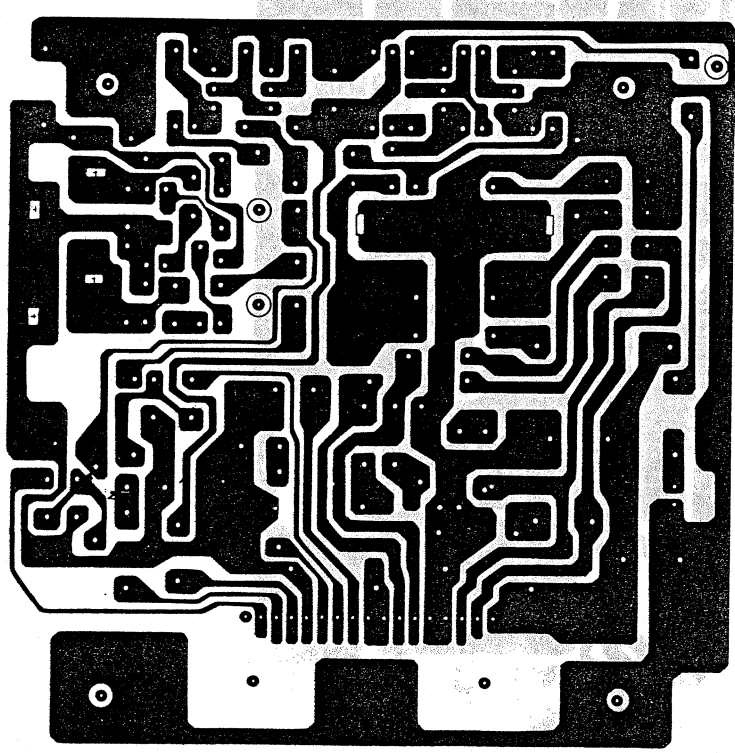


MAIN P.C. BOARD 4002609300 (XA-1040)

— TOP VIEW —

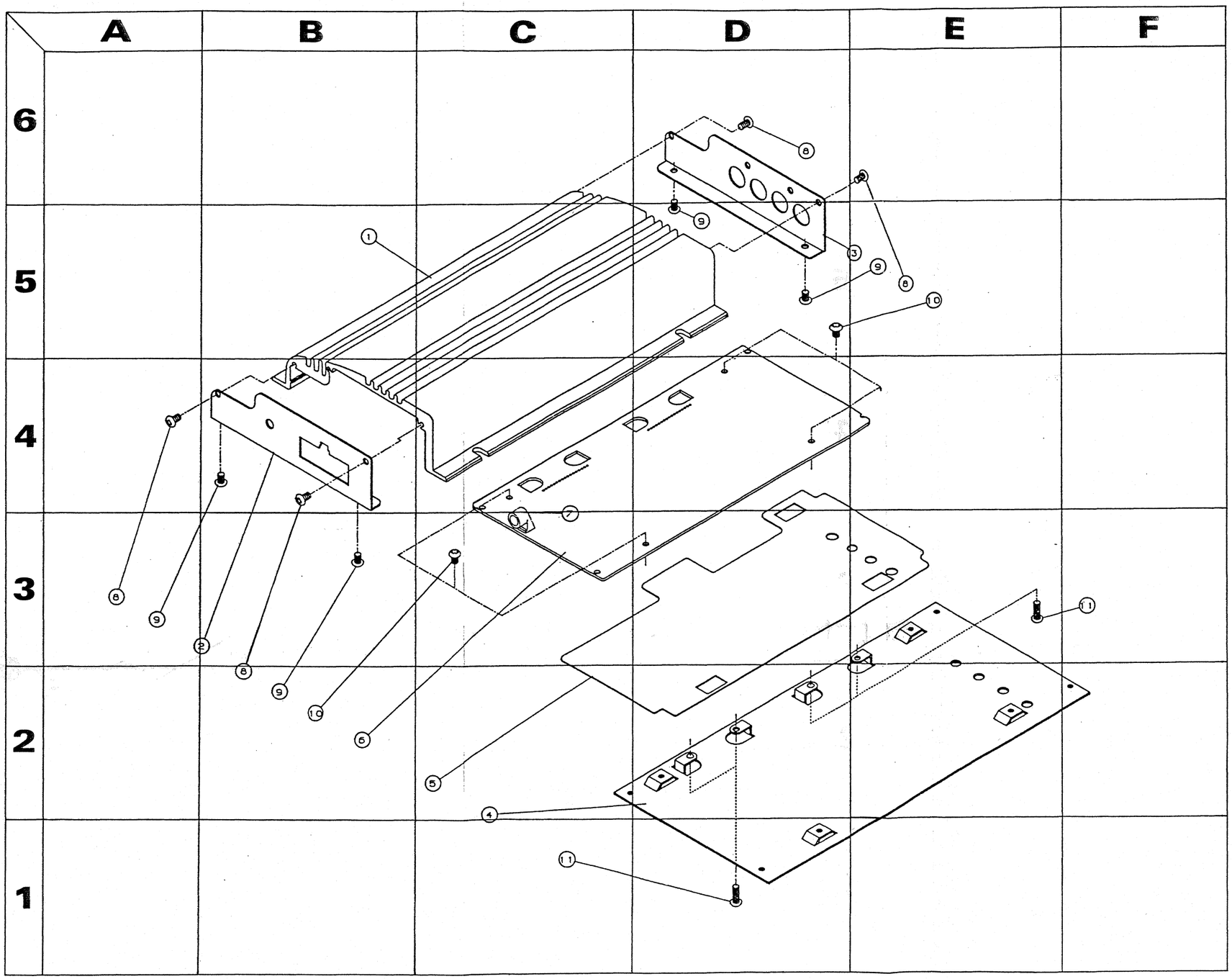


— BOTTOM VIEW —



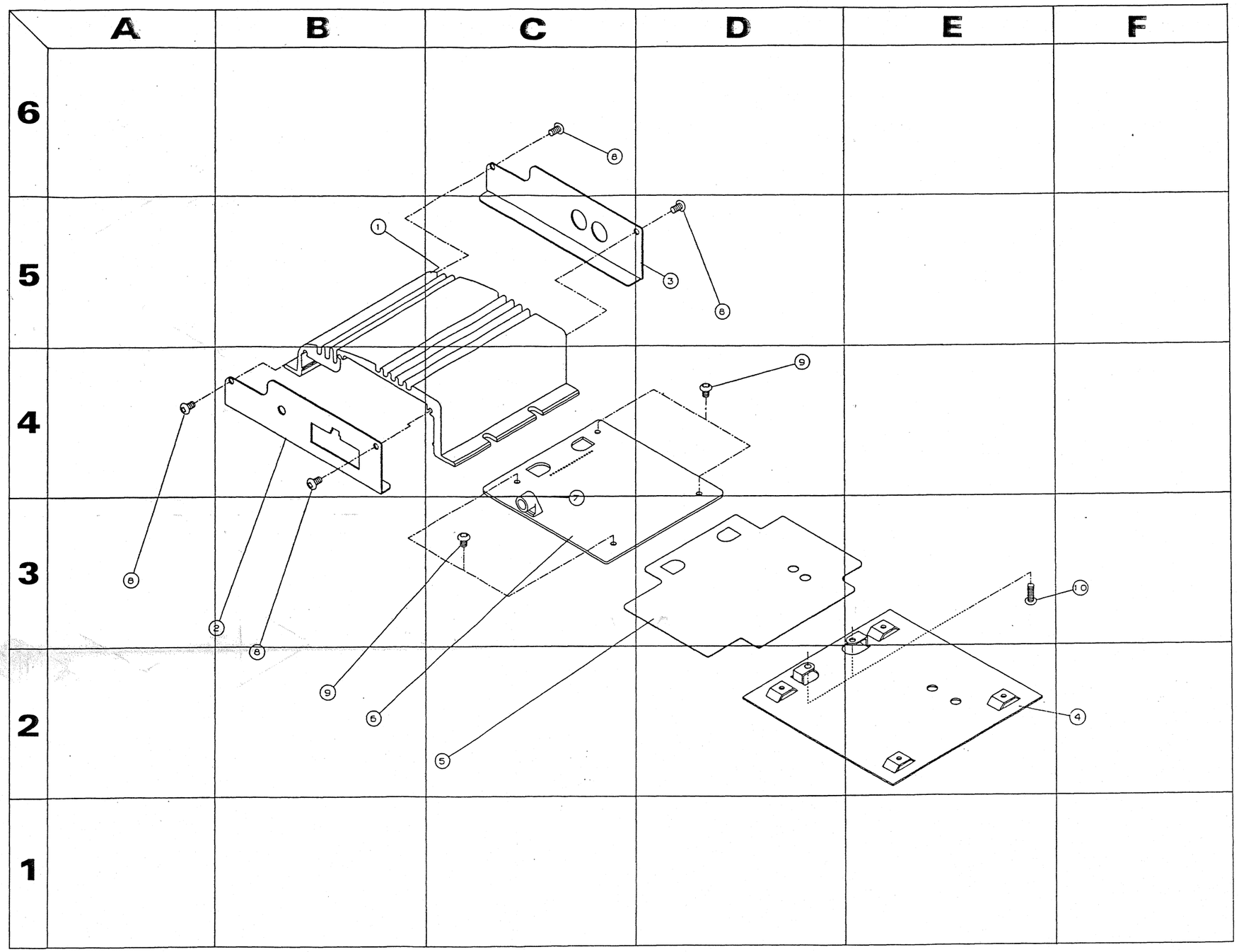
Exploded View Part List of Cabinet & Chassis (XA-1041)

Ref. NO.	Part No.	Description	Q'ty	Position
1	047502002911	Heat Sink	1	B5
2	046505098111	Chassis Front	1	B3
3	046505098211	Chassis Back	1	E5
4	6123012110	Bottom Cover	1	C2
5	4833002410	Insulation Cover	1	C2
6	4002607500	Main P.C. Board	1	B2
7	8545070010	Supportor LED	1	C3
8	8119930063	Screw #2PS 3×6B	4	A/B3,D6,E5
9	8119430053	Screw SAM 3×5B	4	A/B3,D5,E5
10	8119430051	Screw SAM 3×5Y	4	B2,E5
11	8019130101	Screw PM 3×10Y	4	C1,F3

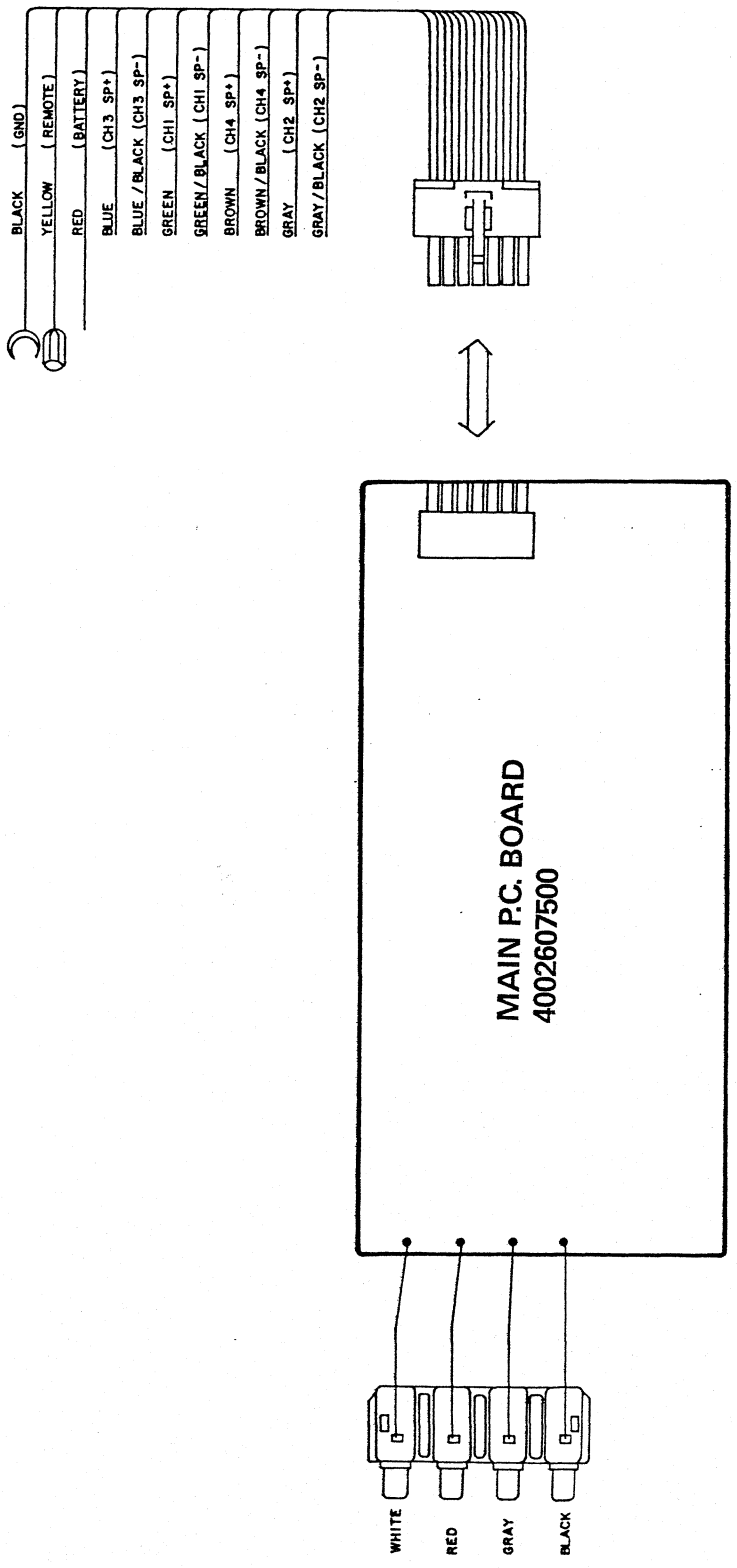


Exploded View Part List of Cabinet & Chassis (XA-1040)

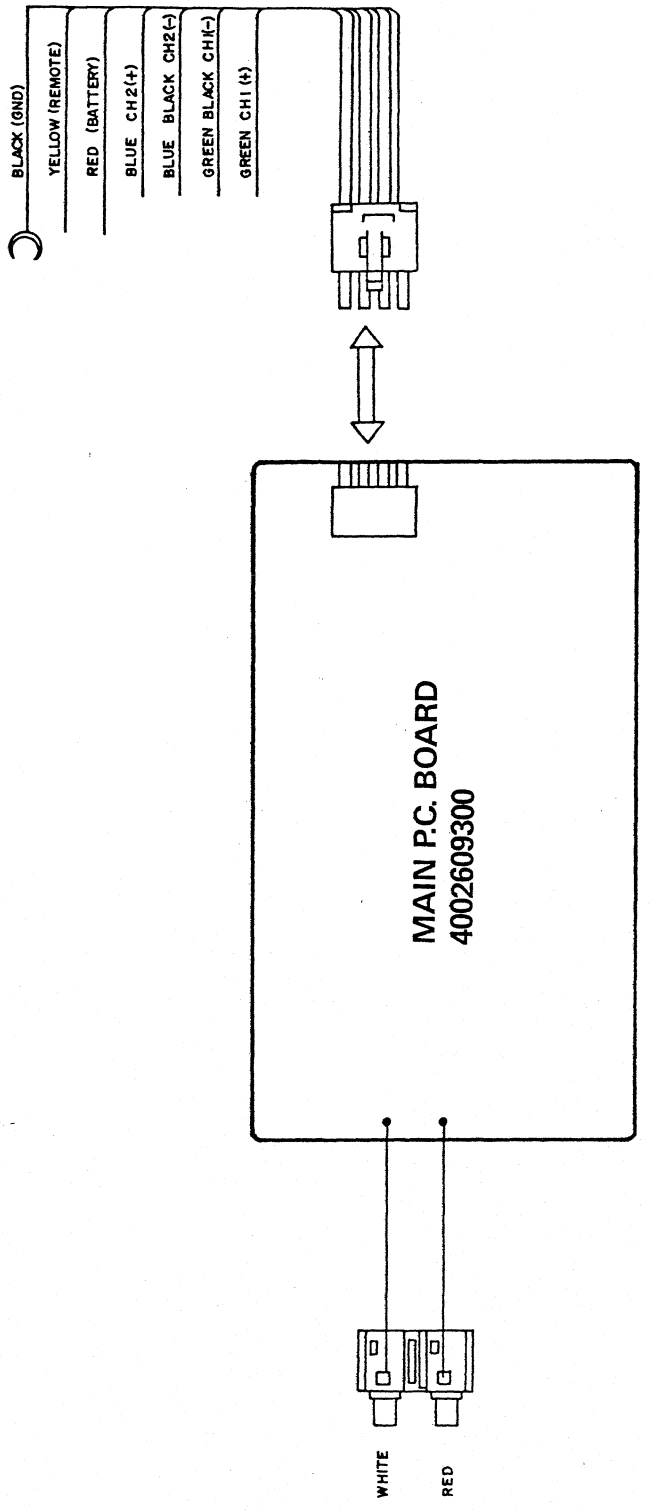
Ref. No.	Part No.	Description	Q'ty	Position
1	047502002921	Heat Sink	1	B5
2	046505098121	Chassis Front	1	B3
3	046505098221	Chassis Back	1	D5
4	6123012910	Bottom Cover	1	F2
5	4835016910	Insulation Cover	1	C2
6	4002609300	Main P.C. Board	1	B2
7	8545070010	Supportor LED	1	C3
8	8119930063	Screw #2PS 3×6B	4	A3,C5,D5
9	8119430051	Screw SAM 3×5Y	4	B2,D4
10	8019130101	Screw PM 3×10Y	2	F3



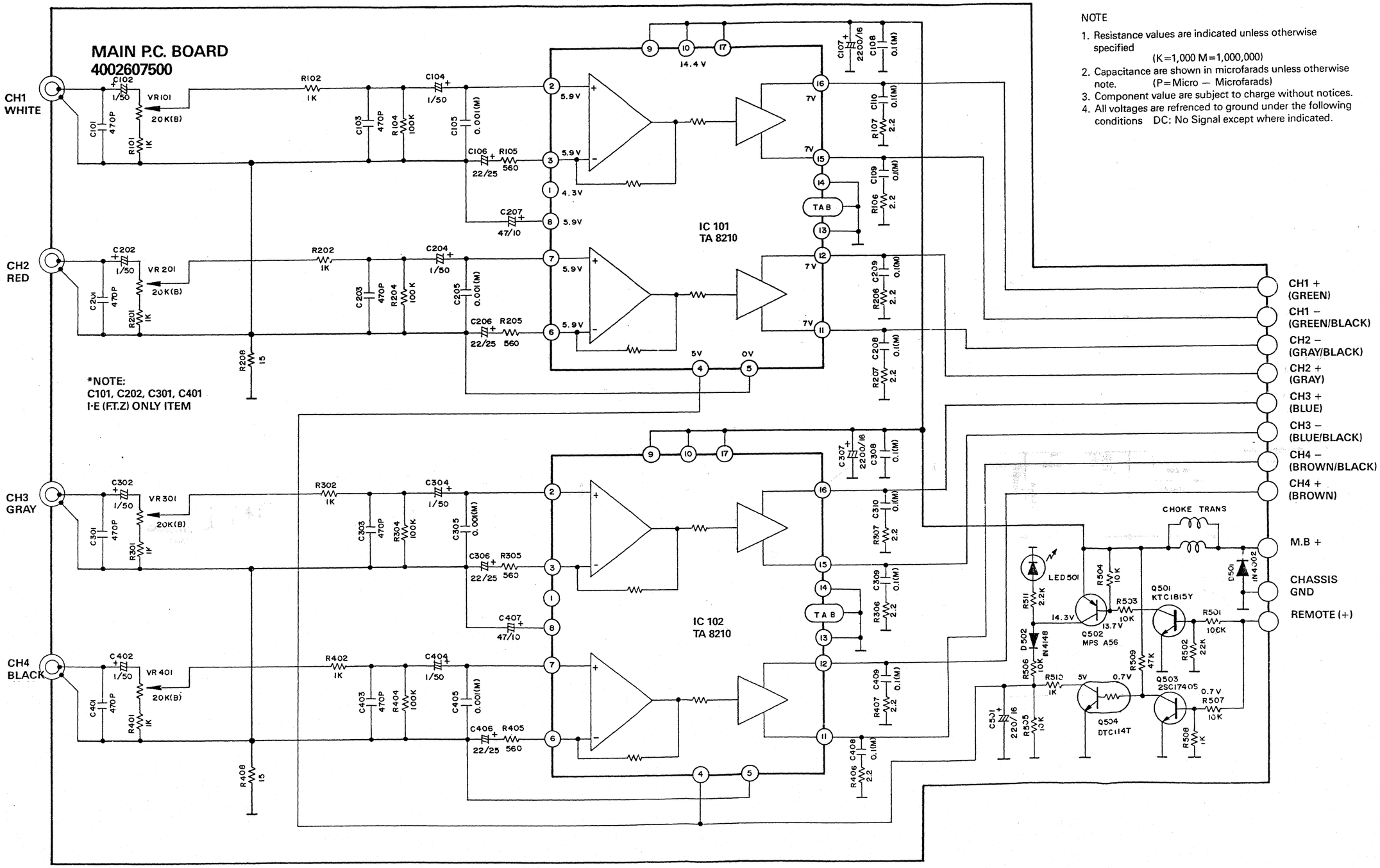
Point to Point Wiring Diagram (XA-1041)



Point to Point Wiring Diagram (XA-1040)



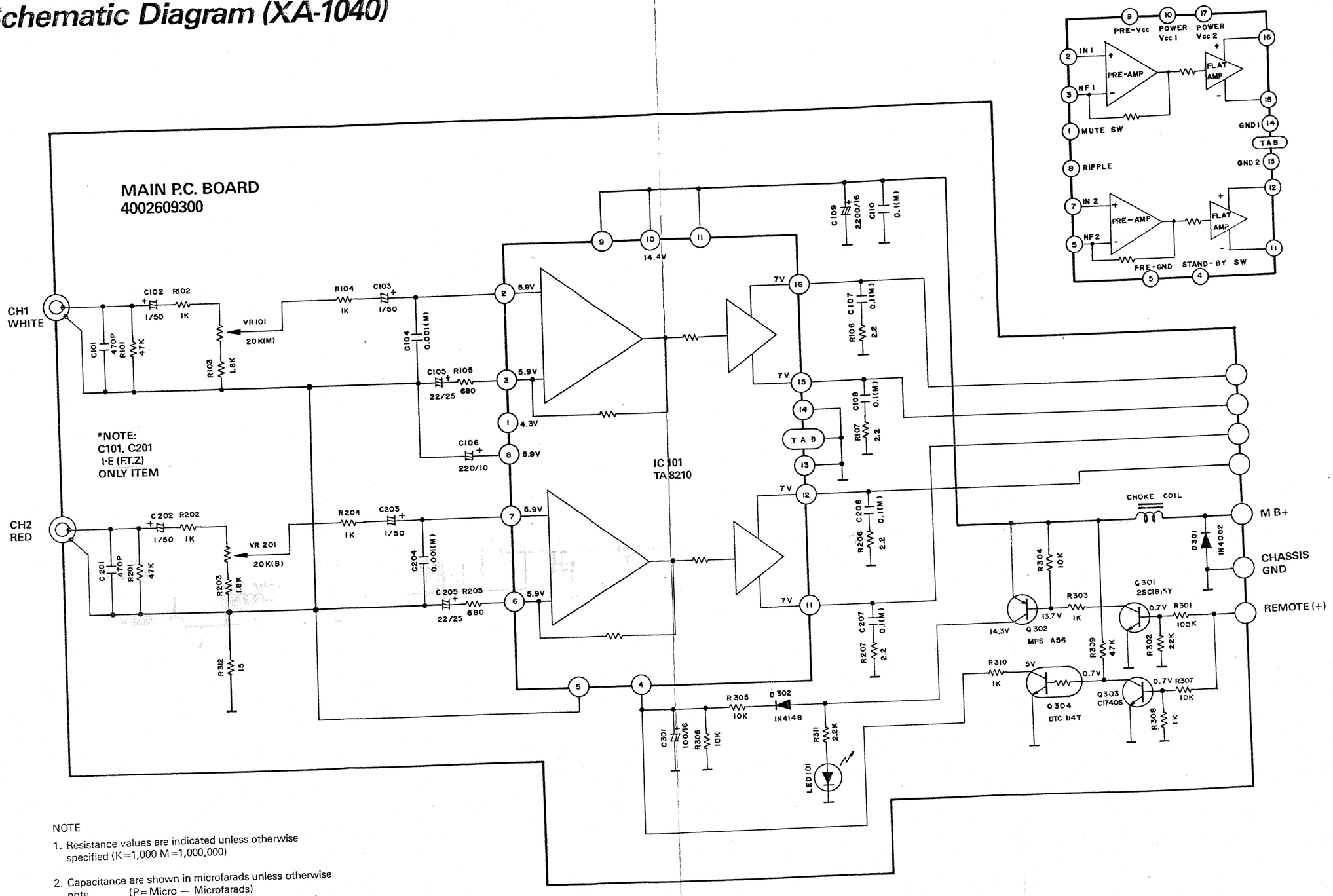
Schematic Diagram (XA-1041)



NOTE

1. Resistance values are indicated unless otherwise specified
   (K=1,000 M=1,000,000)
2. Capacitance are shown in microfarads unless otherwise note. (P=Micro — Microfarads)
3. Component value are subject to charge without notices.
4. All voltages are refrenced to ground under the following conditions DC: No Signal except where indicated.

Schematic Diagram (XA-1040)



NOTE

1. Resistance values are indicated unless otherwise specified (K=1,000 M=1,000,000)
2. Capacitance are shown in microfarads unless otherwise note. (P=Micro — Microfarads)
3. Component value are subject to charge without notices.
4. All voltages are refrenced to ground under the following conditions DC: No Signal except where indicated.

IC & Transistor Voltage Chart

XA-1041 ONLY ITEM

1. ICs

Pin No.	IC101 TA8210	IC102 TA8210
1	4.3V	4.3V
2	5.9V	5.9V
3	5.9V	5.9V
4	5.0V	5.0V
5	0V	0V
6	5.9V	5.9V
7	5.9V	5.9V
8	5.9V	5.9V
9	14.4V	14.4V
10	14.4V	14.4V
11	7.0V	7.0V
12	7.0V	7.0V
13	GND	GND
14	GND	GND
15	7.0V	7.0V
16	7.0V	7.0V
17	14.4V	14.4V

2. TRANSISTORs

	Q501	Q502
E	GND	14.4V
C	0V	13.7V
B	0.7V	14.3V

	Q503	Q504
E	GND	GND
C	0V	5.0V
B	0.7V	0.7V

XA-1040 ONLY ITEM

1. ICs

Pin No.	IC101 TA8210
1	4.3V
2	5.9V
3	5.9V
4	5.0V
5	0V
6	5.9V
7	5.9V
8	5.9V
9	14.4V
10	14.4V
11	7.0V
12	7.0V
13	GND
14	GND
15	7.0V
16	7.0V
17	14.4V

2. TRANSISTORs

	Q301	Q302
E	GND	14.4V
C	0V	13.7V
B	0.7V	14.3V

	Q303	Q304
E	GND	GND
C	0V	5.0V
B	0.7V	0.7V